

**SAMSUNG**

Be sure to read the "Safety Precautions" in this manual to ensure correct use and operation of this product.

## DIGITAL COLOR CAMERA

**SCC-B2311**

**SCC-B2310**

**SCC-B2311P**

**SCC-B2011P**

**User's guide**

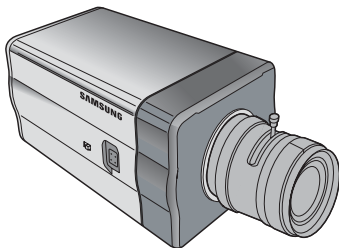
**Руководство пользователя**

**Instrukcja obsługi**

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## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these Instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus(including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachment/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.





13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

This device complies with Part 15 Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) the device must accept any interference received, including interference that may cause undesired operation.

## Safety Precautions

The purpose of safety precautions is to prevent accidental injury or property damage. Always observe all safety precautions.

- The precautions are divided into “Warnings” and “Cautions” as distinguished below:

	
<p><b>Warning</b> Ignoring this precaution may result in death or serious injury.</p>	<p><b>Caution</b> Ignoring this precaution may result in injury or damage to property.</p>



### Warnings

1. Be sure to use only the standard adapter which is specified in the specification sheet. (Using any other adapter could cause fire, electrical shock, or damage to the product).
2. Check the external connection terminals first before connecting the power source and signal wires.
3. Do not connect multiple cameras to a single adapter. (Exceeding the capacity may cause abnormal heat generation or fire.)
4. Securely plug the power cord into the power receptacle. (A loose connection may result in fire.)

5. When mounting the camera on a wall or ceiling, fasten it safely and securely. (A falling camera may cause personal injury.)
6. Do not place conductive objects (e.g., screwdrivers, coins, and metal things) or containers filled with water on top of the camera. (Serious injury may result from fire, electrical shock, or falling objects.)
7. Do not install the unit in humid, dusty, or mines locations. (Doing so may cause fire or electrical shock.)
8. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. (Continued use in such a condition may cause fire or electrical shock.)
9. If this product fails to operate normally, contact the store of purchase or your nearest service center. Never disassemble or modify this product in any way. (Problems caused by unauthorized user disassembly or repairs are not covered by your warranty.)
10. When cleaning, do not spray water directly onto parts of the product. (Doing so may cause fire or electrical shock.) Gently wipe the surface with a dry cloth. Never use detergents or chemical cleaners on the product, as this may result in discoloration of surface or cause damage to the finish.
11. To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.



## Cautions

1. Do not drop objects on the product or apply strong shock to it. Keep away from a location subject to excessive vibration or magnetic interference.
2. Do not install in a location subject to high temperature, low temperature, or high humidity. (Doing so may cause fire or electrical shock.)
3. Avoid a location which is exposed to direct sunlight, or near heat sources such as heaters or radiators. (Neglecting to do so may result in a risk of fire.)
4. If you want to relocate the already installed product, be sure to turn off the power before moving or reinstalling it.
5. Install in a well-ventilated location.
6. Remove the power plug from the outlet when there is a lightning storm. (Neglecting to do so may cause fire or damage to the product.)

# Table Of Contents

Chapter 1 Overview .....	5
Chapter 2 Features .....	6
Chapter 3 Installation .....	8
Package.....	8
Installation and Use Instructions.....	9
Connect the auto iris lens connector.....	10
Install the lens.....	11
Adjust the selection switch .....	12
Adjust the back focus .....	13
Connect the cables and check the operation .....	15
Chapter 4 Parts & Description .....	17
Specifications .....	24

## [Chapter 1] Overview

The DAYNIGHT camera is a low-illumination device that Operates in color mode while illumination is above certain level and in operates in B/W mode in low contrast scenes therefore enhancing the color sensitivity. It is a high-resolution camera that has implemented the horizontal resolution of 540 lines by taking advantage of the Digital Signal Processing and OLPF technologies. (SCC-B2311(P), SCC-B2011P)

### [DAYNIGHT]

A feature that switches to B/W from color mode at less than a certain illumination to enhance the sensitivity.

- ※ In mechanical fluorescent lightning conditions, you can experience so-called “color rolling” if you have installed the manual iris lens on the camera and positioned the function switch from ELC to ON. In this case, connect the camera to the power source (AC) and position the L/L switch on the rear panel to ON. (NTSC: 60Hz, PAL: 50Hz)

### – What is Color Rolling?

This occurs because the mechanical fluorescent lightning blinks from power frequencies, where the color temperature input to the camera is not certain so the color on the screen changes irregularly (red, blue, yellow, etc).

- This problem can be solved by using the Line Lock function or the Auto Iris Lens.

## [Chapter 2] Features

### High Color Sensitivity

The camera adopts the latest 1/3" super-HAD IT CCD to get the benefit of high color sensitivity.

### Resolution

Introduces Full Digital Image Processing from the digital signal technology to implement a high-resolution image.

### Excellent Back Light Compensation

This will guarantee a sharp image by compensating for the back light even if the sunlight or bright lightening reflects against the subject.

### Digital Power Synchronization

Adopts the full digital line lock system to enable you to adjust the vertical synchronization of the camera, an enhancement of manipulation and reliability.

### Sense Up

Uses the field storage system to provide a sharp image; even in low contrast scenes (dark scenes).

### DAYNIGHT

Operates in color mode at higher than a certain illumination while operating in B/W mode to enhance the color sensitivity of the subject in low contrast scenes.

**DNR(Digital Noise Reduction)**

Uses the full digital system to effectively remove the random noise on the image. Especially, it's useful to use LSS (Sense-Up).

**Dynamic CCD Defect Compensation**

Uses advanced technology to compensate CCD defects in any mode, to give clear, sharp and noise-free images, even in low contrast scenes.



## [Chapter 3] Installation

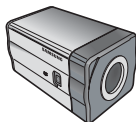
In this chapter, we will provide you with general instructions for product installation and preferred places as well as considerations before installation.

Now, let's install the camera and connect necessary cables.

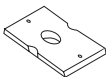
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### Package

You must check that all the components and accessories listed below are included in the product package.



Camera



Camera Holder  
(Mount Adaptor)  
screw x2



User's guide

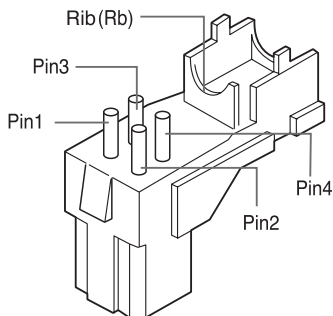


Auto Iris Lens  
Connector

## Installation and Use Instructions

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- ① There is no user serviceable part inside. So do never disassemble the product.
- ② Always take caution in handling the product. Do not put force on or shake the product and make sure to follow the instructions to avoid possible damage to the product from an accident.
- ③ Do not expose it to rain or moisture and keep away from wet places.
- ④ Do not use strong abrasives to clean up camera body and only use a dry cloth to dirt off.
- ⑤ Do not expose it to direct sunlight and keep it cool. Otherwise, it can cause a malfunction or an error.

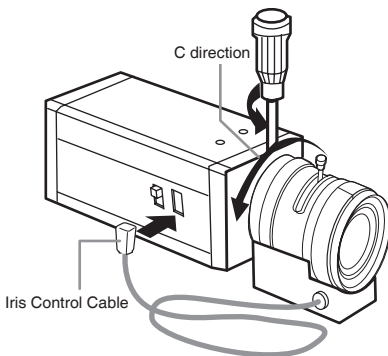
**Connect the auto iris lens connector**

Remove the sheath round the iris control cable and connect it to each of the auto iris lens connector as described below.

Pin Number	DC Control Type	Video Control Type
1	Damp(-)	Voltage (+12V)
2	Damp(+)	Not Used
3	Drive(+)	Video Signal
4	Drive(-)	Ground

## Install the lens

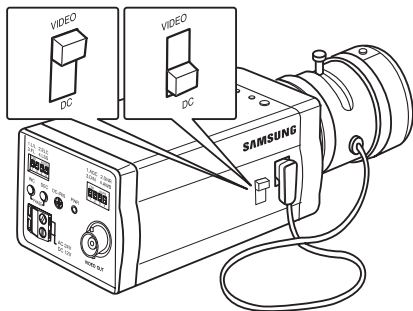
Loosen the single screw on the adjustable ring of the flange back by turning it anti-clockwise and turn the ring in the “C” direction (anti-clockwise) to the end. Otherwise, it can cause damage to the internal image sensor or the lens when you install the lens on the camera.



## Position the selection switch

You must position the lens selection switch on the side of the camera, depending on the lens type. If the installed lens is of DC control type, position the selection switch to "DC" and, for video control type, switch it to "VIDEO".

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## Adjust the back focus

The back focus of a camera is predefined by the factory default. However, some models are out of focus depending on the lens type. If your camera is out of focus, follow the instructions below to adjust the back focus. The following is the procedure used to set the proper back focus point in fixed focus lenses.

### Lens without zooming feature

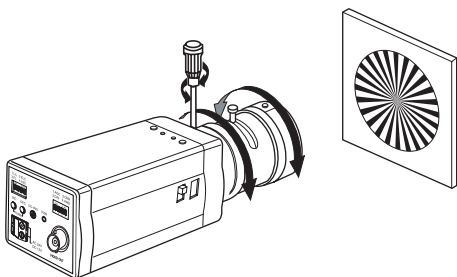
- ① Capture a sharp subject (with a grid pattern) more than 10m apart and adjust the focus ring to the infinity ( $\infty$ ).
- ② Adjust the adjustable ring of the flange back so that you can capture the sharpest image.
- ③ Fasten the screw of the adjustable ring of the flange back.

### Lens with zooming feature

- ① Capture a sharp subject (with a grid pattern) 3-5m apart and adjust the zoom in the TELE (zooming) direction as possible and also adjust the focus ring so that you can capture the sharpest image.
- ② Adjust the zoom in the WIDE direction as possible and turn the adjustable ring of the flange back so that you can capture the sharpest image.
- ③ Repeat ① and ② above 2-3 times to match the focus from the ZOOM TELE side with that from the ZOOM WIDE side.

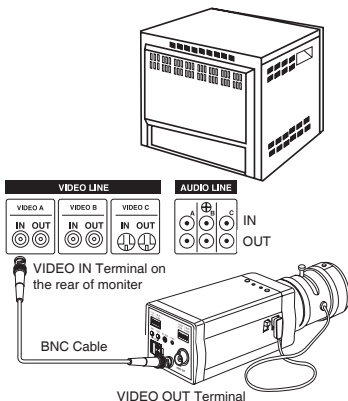
- ④ Fasten the screw of the adjustable ring of the flange back.
- If you darken the image before adjusting the focus by attaching the ND filter to the front of the lens, you can get a sharper focus.

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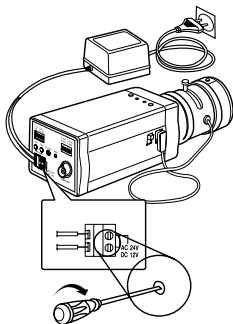
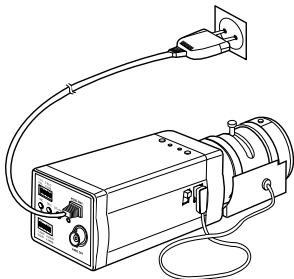
## Connect the cables and check the operation

1. Connect one end of the BNC cable to the VIDEO OUT port of the monitor.
2. Connect the other end of the BNC cable to the VIDEO In port.



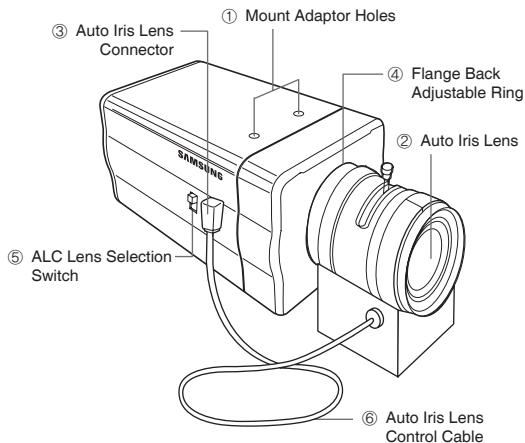
3. Connect the camera to the power adaptor. Use a slotted flat (-) screwdriver to connect one end of the two-line power adaptor to the DC/AC IN port of the camera. (GND: marked with a white line on the cable)
- You can plug in to a power outlet regardless of the polarity for both AC 24V and DC 12V adaptor.



**AC24V/DC12V models (SCC-B2311, B2310, B2311P)****AC220V models (SCC-B2011P)**

## [chapter 4] Parts & Description

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### ① Mount Adaptor Holes

Used to fix the mount adaptor with a screw if you want to mount the camera on the bracket.

### ② Auto Iris Lens (Optional)

A lens to be installed on the camera

- If the camera gets dirty on the surface of the lens, apply ethanol to the provided tissue or a dry cloth and wipe it out.

③ Auto Iris Lens Connector

Provides power source and control/ video/DC signal with iris lens that are required to control the iris of the lens.

④ Flange Back Adjustable Ring

Used to adjust the back focus of the camera.

⑤ ALC Lens Selection Switch

Switch for selecting the type of the lens on the camera.

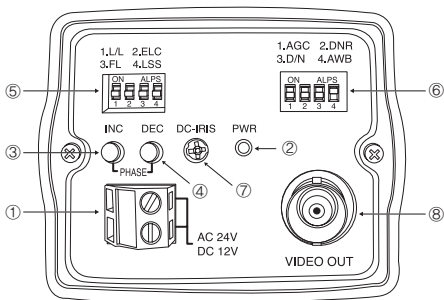
- DC : position the switch to "DC" if the auto iris lens that requires the DC control signal is installed on your camera.

- VIDEO : position the switch to "VIDEO" if the auto iris lens that requires the video control signal is installed on your camera.

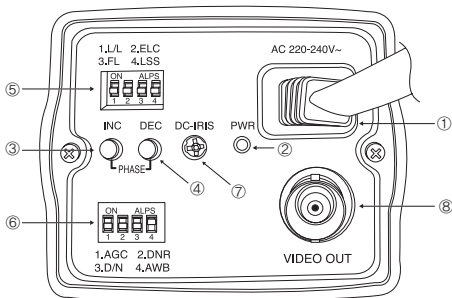
⑥ Auto Iris Lens Control Cable

Transfers the control signal from the camera to the iris lens.

## AC24V/DC12V Models (SCC-B2311, B2310, B2311P)



## AC220V Models (SCC-B2011P)



## ① Power Port

Port that is connected to the power (adaptor) cable.

- **For SCC-B2311, SCC-B2310 and SCC-2311P**

Connects to AC 24V or DC 12V.

- **For SCC-B2011P**

Connects to AC 230V.

## ② Power Indication LED

If properly supplied with power, the LED turns on.

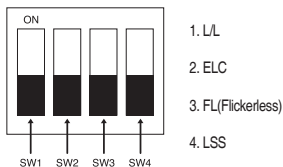
## ③ Vertical Synchronization Phasing Switch (Left)

Used to adjust the vertical synchronization phasing. If pressed, the vertical synchronization moves to the left.

## ④ Vertical Synchronization Phasing Switch (Right)

Used to adjust the vertical synchronization phasing. If pressed, the vertical synchronization moves to the right.

## ⑤ FUNCTION SWITCH-1



## 1) SW1 (L/L) :

If set to OFF, it operates in the internal synchronization mode and if set to ON, it operates in the power synchronization mode. If multiple cameras are connected to such as a sequential switcher in auto switch mode, the

camera in the internal sync mode occurs a skip every time it moves to other scene. However, this can be solved by positioning the L/L switch to ON and using the level bar to adjust the vertical sync phasing.

- If your camera uses DC 12V for power source, it operates in the internal mode regardless of the position (On/Off) of the L/L switch.

2) SW2(ELC) :

Use this for the manual iris lens. If set to ON, the electronic shutter speed varies between 1/60 and 1/120,000 second to keep the screen brightness proper. However, you must position this switch to OFF if you are using the auto iris lens (DC or Video control type). Because, in this mode, the camera can show the color rolling effect when operating under the mechanical fluorescent lightning. If this happens, apply the AC power and set the SW1 (L/L) to ON. (NTSC: 60Hz, PAL: 50Hz)

3) SW3 (FL) :

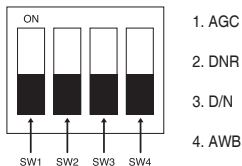
It is an anti-flicker system in 50Hz areas for NTSC and, in 60Hz areas for PAL that prevents the flickering of the image due to mismatch between the vertical sync frequency and the on-off frequency of the lightning. If set to ON, the electronic shutter speed stays at either 1/100sec (NTSC) or 1/120sec (PAL).

※Note : If SW2 (ELC) is set to ON, the anti-flicker system does not work even if SW3 is positioned to ON.

#### 4) SW4(LSS) :

It is a Sense-Up function that keeps storing the image field into memory to remove the random noise on the image and increase the brightness and the contrast ratio. If set to ON, the camera automatically switches to a maximum of 128 times of storage mode for sharper image.

### ⑥ FUNCTION SWITCH-2



#### 1) SW1(AGC)

This switch turns on or off the AGC (Auto Gain Control) function of the camera. If set to ON, the AGC automatically increases the gain in a low contrast scene of which the iris couldn't control the brightness.

#### 2) SW2(DNR)

This switch reduces the random noise on the image. In particular, this is more effective when the SW4 on the function switch -1 is set to ON.

#### 3) SW3(D/N)

This indicates the DAY & NIGHT function. If set to ON, the camera outputs a color image during the daytime and enhances the color sensitivity of the subject in a low contrast scene, especially at night by turning off the IR cutoff filter.

※Note : If SW1 (AGC) is set to OFF, the Day & Night function does not work even if SW3 is positioned to ON.

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## 4) SW4(AWB)

If set to ON, it automatically adjusts the image color according to the temperature change of the lightning color. Under a very irregular lightning condition (such as car headlight), if set to ON, it captures a subject normally (white) and if set to OFF, it remembers the then normal color temp to operate at a certain white balance level. Note that AWB can cause an error in the following conditions. First, if a big subject of a uniform color with a high saturation exists in the center of the screen or if few part of the image is in white. Second, if the lightning is made of special material like sodium.

## ⑦ DC IRIS Level Bar

If the ALC lens selection switch is set to DC, use a screwdriver to adjust the iris level on this bar.

※Note : - The IRIS range of the DC lens is about between 80IRE and 120IRE. In other words, the DC lens adopts a variable range limitation system, rather than IRIS Full Open/Close system.  
- Depending on the type of the lens used that allows setting the value below 75 IRE may cause IRIS hunting. Therefore, make sure that the range is set to an appropriate level (higher than 80 IRE).

## ⑧ Video Out Port

Connected to the Video Out port of a monitor. The video signal is output via this port.



# Specifications

## 【 SCC-B2311, SCC-B2310 】

Item	Description
Product Type	Surveillance Camera
Broadcasting System	NTSC STANDARD SYSTEM
Imaging Device	1/3"IT, S-HAD-CCD
Number of Effective Pixels	SCC-B2311: 768(H) x 494(V) SCC-B2310: 510(H) x 492(V)
Scanning	525 Line, 2:1 interlace
Line Frequency	INTERNAL : 15,734Hz(H) 59.94 Hz(V) LINELOCK : 15,750Hz(H) 60 Hz(V)
Synchronous Mode	INTERNAL LINE LOCK(AC 24V)
Horizontal Resolution	SCC-B2311 : 540 TV Lines SCC-B2310 : 330 TV Lines
S/N Ratio	Approx. 50dB
Minimum Subject Illumination	SCC-B2311 : 0.12 Lux (F1.2, 15 IRE, Sense-up off) 0.0009 Lux (F1.2, 15 IRE, Sense-up x 128) SCC-B2310 : 0.06 Lux (F1.2, 15 IRE, Sense-up off) 0.0005 Lux (F1.2, 15 IRE, Sense-up x 128)
ALC/ELC	ALC DC IRIS LENS VIDEO LENS ELC Electronic Shutter Iris(max. 1/120Ksec)
FL(Flickerless)	OFF/ON
LSS(SenseUP)	OFF/ON (Auto x 128)
DNR	OFF/ON
DN (DAYNIGHT)	OFF/ON (Auto)
Color Temp	ATW(Auto White Balance)/AWC
BLC (Back Light Compensation)	ON
AGC	OFF/ON
Signal Out	COMPOSITE VIDEO OUT 1V p_p 75Ω / BNC
Power	AC24V ±10%(60Hz±0.3Hz), DC12V+10%~-5%
Power Consumption	Approx. 3.0 Watts
Temperature	-10°C ~ +50°C
Moist	~90%
Dimension	65 (W)x 55 (H)x 138 (D)mm(BNC included)
Weight	440 g

# Specifications

## 【 SCC-B2311P, SCC-B2011P 】

Item	Description
Product Type	Surveillance Camera
Broadcasting System	PAL STANDARD SYSTEM
Imaging Device	1/3"IT, S-HAD-CCD
Number of Effective Pixels	752(H) x 582(V)
Scanning	625 Line, 2:1 interlace
Line Frequency	INTERNAL : 15,625Hz(H) 50 Hz(V) LINE LOCK : 15,625Hz(H) 50 Hz(V)
Synchronous Mode	INTERNAL LINE LOCK(AC 24V)
Horizontal Resolution	540 TV Lines
S/N Ratio	Approx. 50dB
Minimum Subject Illumination	0.12 Lux (F1.2, 15 IRE, Sense-up off) 0.0009 Lux (F1.2, 15 IRE, Sense-up x 128)
ALC/ELC	ALC DC IRIS LENS VIDEO LENS ELC Electronic Shutter Iris (max. 1/120K sec)
FL(FLICKERLESS)	OFF/ON
LSS(SenseUP)	OFF/ON (Auto x 128)
DNR	OFF/ON
DN (DAYNIGHT)	OFF/ON (Auto)
Color Temp	ATW(Auto White Balance)/AWC
BLC (Back Light Compensation)	ON
AGC	OFF/ON
Signal Out	COMPOSITE VIDEO OUT 1V p_p 75Ω/BNC
Power	SCC-B2311P : AC24V ±10%(50Hz±0.3Hz), DC12V±10%~5% SCC-B2011P : AC220V~AC240V(50Hz±0.3Hz)
Power Consumption	SCC-B2311P: approx. 3.0 Watts SCC-B2011P: approx. 3.5 Watts
Temperature	-10°C ~ +50°C
Moist	~90%
Dimension	65 (W)x 55 (H)x 138 (D)mm(BNC included)
Weight	SCC-B2311P : 440 g SCC-B2011P : 550 g

## **Correct Disposal of This Product (Waste Electrical & Electronic Equipment)**

**(Applicable in the European Union and other European countries with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.



